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# A Ten-Year Review of Family Preservation Research: Building the Evidence Base

## **Executive Summary**

Intensive family preservation services have received much scrutiny from the public and from researchers. Homebuilders® is the program model most closely identified with intensive family preservation services. After defining the key parameters of this intervention model, this report reviews the main research findings over the past 3 decades and provides an in-depth analysis of studies from the last 10 years, discussing the methodological challenges encountered. A recent milestone is the Washington State Institute for Public Policy meta-analysis of intensive family preservation services research. Their findings suggest that intensive family preservation programs that adhere closely to the Homebuilders® model significantly reduce out-ofhome placement.

In this report, we examine studies of Intensive Family Preservation Services (IRPS) reported subsequent to an analysis that was completed in 1997 by Fraser, Nelson, and Rivard. Listed in order of publication, the three studies that align most closely with Homebuilders® standards include the Family Enhancement Program (Oregon), the Intensive Family Preservation Services Program (North Carolina), and the Families First Program (Michigan). A three-state study conducted by Westat, Chapin Hall Center for Children, and James Bell Associates (2001) also is considered. The most common structural features of the programs include immediate response to referrals (within 24 hours), worker accessibility 24 hours a day, 7 days a week, intensity (12-15

hours a week of services), brief services (90 days for placement prevention), and low caseloads (2 families per worker or 5 families per worker with paraprofessional assistance).

A range of effects was found with only one large effect size (above .55). Medium effect sizes (.33 to .55) were found mostly in sub-samples with clear risk factors for placement. In Michigan a large effect (.77) was found with 93% of the intervention group intact compared to 63% of the control group at the end of the 12-month follow-up period. In North Carolina, a medium effect (.55) was found in a small sub-sample of cases with prior placements; at 12 months, 81% of the intervention group avoided placement compared to 56% of the comparison cases. The only other sub-sample to show a medium effect (.35) included cases in *Kentucky* (Westat, 2001) that had family court petitions filed. Over 80% of the intervention cases had avoided placement at 12 months compared to two-thirds of the control group. Small (.00 to .32) or negative effect sizes were found for the remaining IFPS examples.

In some ways, these findings replicate Fraser, Nelson, and Rivard's (1997) comparative analysis of IFPS research and they underscore the difficulty of identifying which families to serve (targeting), ensuring treatment fidelity, and employing rigorous and appropriate evaluation methods. In other ways, however, they present promising new findings including the replicability of the intervention, the need to consider and control for risk factors, and additional evidence of

effectiveness with child welfare populations.

Although some of the studies in this review report promising results, the field still needs additional evidence that IFPS programs prevent unnecessary child placement and more data about which types of family-based services programs are most effective with different client sub-populations, including racial and ethnic minorities and those involved in physical abuse, neglect, and other parenting problems. We also need a better understanding of the effectiveness of IFPS with different age groups of children, of program components that contribute to success with different families (e.g., in-home services, client goal-setting, concrete services), and of nonprogram components that may be important for certain families (e.g., other community supports, specialized treatment services).

Some progress is being made with studies that are beginning to look at sub-populations and outcomes in addition to placement prevention. In addition, future evaluations could well incorporate a range of methodological refinements, as described in Appendix B. As state and county child welfare systems look more intently at reducing their foster care populations and reinvesting savings in high-quality services, we believe that IFPS programs should be part of an array of interventions.

# A Ten-Year Review of Family Preservation Research: Building the Evidence Base

Few social welfare interventions have received as much public and research scrutiny as intensive family preservation services. Hailed as a solution to the growing number of children "drifting in foster care" and the associated public costs, to some in the 1980's intensive family preservation services (IFPS) seemed like a panacea (Adams, 1994). Of course, no one intervention, no matter how powerful or effective, is the solution to the complex and diverse problems encountered by the child welfare system. The program model most closely identified with intensive family preservation services is the Homebuilders® model which the Edna McConnell Clark Foundation brought into the public spotlight when it dedicated significant funds for dissemination of the model (Forsythe, 1992). After defining the key parameters of this intervention model, this report reviews the main research findings over the past 30 years for intensive family preservation services with particular focus on the last decade and describes the methodological challenges that have been encountered. We end the report with concrete recommendations as to how future research can advance the design and use of this model.

## Defining Intensive Family Preservation Services

Intensive family preservation services programs are generally distinguished from other forms of family support or family-based services by the combination of case management with intensive therapeutic and other services. Some of these services are designed for families "in crisis," at a time when removal of a child is perceived as imminent or the return of a child from out-of-home care is being considered. Yet the reality is

that the IFPS model is also being applied to some long-term child maltreatment cases that do not involve a crisis as a way to re-engage families with service providers. But in general, IFPS programs are delivered with more intensity (including a shorter time frame and smaller caseloads) than other child welfare services.

While program design and specific interventions differ, most of the IFPS programs share many, if not all, of the following characteristics:

- Smaller caseloads of two to six families are maintained; and a primary worker, advocate, or case manager establishes and maintains a supportive, empowering relationship with the family.
- One or more associates serve as team members or provide back up for the primary worker.
- Workers (or their back-up person) are available 24 hours a day for crisis calls or emergencies.
- A wide variety of helping options are used (e.g., "concrete" forms of supportive services such as food and transportation are provided along with clinical services).
- The home is the primary service setting and maximum use is made of natural helping resources, including the family, the extended family, the neighborhood, and the community.
- The parents remain in charge of and responsible for their family as the primary caregivers, nurturers, and educators. The content of services is adapted over time on

- the basis of the needs and preferences of family members.
- Services are intensive: Families typically are seen between 6 and 10 hours per week, and services are time-limited, usually 1-4 months (Haapala & Kinney, 1979; Kinney, Haapala, Booth, & Leavitt,1990; Kinney, Haapala, & Gast, 1981; Walton, Sandau-Beckler, & Mannes, 2001).

## Core Components of Family-Based Services

Based on the early writings of the family-based services pioneers, the National Resource Center on Family-Centered Services and Permanency Planning (2007, p. E1) considered the following to be the essential components of family-based services or family-centered practice in child welfare:

- The family unit is the focus of attention:
   Family-centered practice works with the family as a collective unit insuring the safety and well-being of family members.
- 2. Strengthening the capacity of families to function effectively is emphasized:
  The primary purpose of family-centered practice is to strengthen the family's potential for carrying out their responsibilities.
- Families are engaged in designing all aspects of the program policies and services:

Family-centered practitioners partner with families to use their expert knowledge throughout the decision- and goal-making processes and provide individualized, culturally responsive, and relevant services for each family.

4. Families are linked with more comprehensive, diverse, and communitybased networks of supports and services:

Family-centered interventions assist in mobilizing resources to maximize communication, shared planning, and collaboration among the several community and/or neighborhood systems that are directly involved with the family.

"Family preservation" as a distinct child welfare intervention targets families who are at relatively high risk of removal of one or more children, or families with a child removed already who need support for reunification. Child maltreatment has been identified in these families and the goal is to prevent its re-occurrence (a form of "selected or indicated" prevention). Case management, counseling/therapy, education, skill building, advocacy, and/or concrete services are provided. Most often found in child welfare agencies, these services also are being provided in mental health, juvenile justice, and family reunification programs (Comer & Fraser, 1998; Henggeler & Sheidow, 2003; Timmons-Mitchell, Bender, Kishna, & Mitchell, 2006; Walton et al., 2001).

The range of family-centered services available to child welfare staff has broadened in the past 10 years, although not everything is available in every community. Almost 30 years since its inception, IFPS is only one among many service options. Researchers need to develop more creative designs and data collection methods if they hope to extract meaningful differences among a very broad array of service possibilities (J. McCroskey, personal communication, March 10, 2008).

# Early Promising Results Were Followed by Disappointing Findings

Early studies of intensive family preservation programs, largely based on the Homebuilders® model, were very promising. These consisted of

follow-up studies of families who had completed services. As an example, Kinney, Madsen, Fleming, and Haapala (1977) reported that 97% of families served by Homebuilders® were still intact 3 months following termination of services and 86% were still intact 12 months following termination. Fraser, Pecora, and Haapala (1991) reported comparable findings and they began the use of more sophisticated statistical techniques to identify which family characteristics and service components were linked with positive outcomes. Although these findings are impressive, other researchers noted the lack of comparison or control groups (Rossi, 1992). As intensive family preservation services gained in popularity, both researchers and critics called for more rigorous evaluations (Pecora, Fraser, Nelson, McCroskey, & Meezan, 1995; Rossi, 1992).

While the goal of more sophisticated evaluations was to answer the critics and to build greater support for intensive family preservation services, this was not to be the case. Subsequent studies attempted to improve on the previous research by using comparison groups and multiple outcome measures in addition to assessing placement outcomes (e.g., Feldman, 1991; Schuerman, Rzepnicki, Littell, & Chak, 1993; Yuan, McDonald, Wheeler, Struckman-Johnson, & Rivest, 1990). Unfortunately, findings from these studies provided less support for family preservation services than did earlier studies. At about the same time, the popular press published harsh criticisms of the model, citing child safety issues and even child deaths in families who had received intensive family preservation services (Ingrassia & McCormick, 1994; Kelly & Blythe, 2000; Murphy, 1993). While academics have noted that the media coverage overlooked issues related to the safety of children who were in state care (Maluccio & Whittaker, 1997), the less positive results of these studies were difficult to ignore.

#### Methodological Challenges

Reviews of IFPS studies, however, noted that many had methodological flaws and suggested that their results should be interpreted with caution. In the mid-1990s, Bath and Haapala (1994); Blythe, Salley, and Jayaratne (1994); and Heneghan, Horwitz, and Leventhal (1996) offered methodological critiques of this wave of research on intensive family preservation services. Perhaps the most important specific concerns identified in these reviews were targeting, treatment fidelity, and measurement of outcomes.

Intensive family preservation services have generally been designed for families with one or more children at imminent risk of removal. While most programs indicate that they are targeting imminent risk cases, the data suggest otherwise. A study in Illinois presents a vivid example of this problem (Schuerman et al., 1993). Fully 93% of children in the control group were not placed four weeks after their cases were opened, thus suggesting that they did not meet the imminent risk criteria. Moreover, cases were never opened during the course of the study by the Illinois public child welfare agency for 18% of the families in the control condition. Finally, no services were provided during the first 90 days following random assignment for 51% of the control-condition families. The problem of failing to reach a population at imminent risk is not limited to the Illinois study. For instance, only 20% of families in the control group in a California study experienced out-of-home placement (Yuan et al., 1990).

Related to the question of targeting is the issue of heterogeneity of the sample (Bath & Haapala, 1994). All too often, studies of intensive family preservation services have included families with different issues, such as neglect and abuse, in the same sample. Because many of the studies have small samples, researchers rarely can address the question of which families are best served by intensive family preservation services. (See Fraser

et al., 1991; Nelson & Landsman, 1992; and Schuerman et al., 1993 for examples where the sample size allowed for sub-group multivariate analyses.)

A lack of attention to the implementation of the intervention seriously compromises many studies of intensive family preservation services. As described by Wilkinson (2006), "Treatment integrity (or fidelity) refers to the extent to which an intervention is implemented as intended" (p. 426). Some studies identified strategies used by intensive family preservation programs to increase fidelity to the model such as providing training to workers (Feldman, 1991) or regular staff meetings to discuss the intervention (Berry, 1991). Unfortunately, intensive family preservation research has been slow to quantitatively assess the degree of treatment integrity present in the intensive family preservation program being tested (Kirk, Reed-Ashcraft, & Pecora, 2003). Recently, the Washington State Institute for Public Policy (2006) conducted a meta-analysis of studies of intensive family preservation services. They concluded that programs that strictly adhered to the components in the Homebuilders® model significantly reduced out-of-home placement compared to programs that did not adhere closely to the model.

In addition, critiques of intensive family preservation research have identified multiple concerns regarding the outcome measures. Perhaps the greatest concern centers on the use of a sole measure of effectiveness, which typically is avoiding out-of-home placement. While this is a central goal of intensive family preservation services, particularly from a policy perspective, avoiding placement does not necessarily mean that children and families are doing well. Such variables as subsequent abuse or neglect, family functioning, child health and safety, child school attendance and/or performance, delinquency, and domestic violence are other indicators that have been used or suggested to measure the effectiveness of intensive family preservation

services (Dagenais, Begin, Bouchard, & Fortin, 2004; Fraser et al., 1991; Heneghan et al., 1996). In addition to the variables selected to indicate success, we also must consider the extent and length of change we can reasonably expect of a time-limited intervention (Blythe et al., 1994).

There are other concerns related to using outof-home-placement as the ultimate indicator of success. For instance, Bath and Happala (1994) point out that intensive family preservation services in some families may actually serve to identify the need for out-of-home placement to ensure child safety. In these cases, a placement would actually be regarded as a "success" from a clinical perspective, but not necessarily from a research or policy perspective. Moreover, the range of definitions of placement outcomes, such as informal and formal placement with kin or emancipation, should be considered. Studies often do not stipulate whether they deem these types of placements/living situations to be a success, and policymakers may disagree about whether they are appropriate indicators of success. The decision to place a child also is influenced by a range of factors including the predispositions of social service and/or family court professionals and the availability of placements.

As noted earlier, the overall rigor of the research was a major concern noted by critics of intensive family preservation studies. Adapting a method of assessing the quality of randomized clinical studies developed by Chalmers, Smith, Blackburn, Silverman, Schroeder et al. (1981), Heneghan, Horwitz, and Leventhal (1996) attempted to quantify the methodological rigor of intensive family preservation research. They developed eligibility criteria, which considered how families were assigned to research conditions; the adequacy of the description of the intervention, and the assessment of outcomes. Beginning with 802 published and unpublished references to family preservation programs, they eventually identified only 10 studies that met their eligibility criteria. Within this group, five studies employed random

assignment and five studies employed quasiexperimental designs. Only two of the studies were deemed methodologically acceptable and only one of these studies (Feldman, 1991) reported statistically significant differences in out-of-home placement. While their methods of assessing the quality of the studies might be questioned, Heneghan et al. (1996) offered another approach to examining the quality of studies of intensive family preservation services.

These methodological critiques of research on intensive family preservation services were followed by another small wave of quantitative assessments of the effects of services. A little over a decade ago, Fraser, Nelson, and Rivard (1997) conducted a quantitative analysis of research on family preservation programs. They adopted a broad but specific definition of family preservation that included family-based services for children and families in the juvenile justice and mental health systems as well as the child welfare system. Focusing on the effect sizes of outcomes in studies that employed control or comparison groups, their findings shed further light on the effectiveness of intensive family preservation services and proposed methodological considerations for future research.

Fraser and his colleagues suggested that family preservation research continued to be plagued by problems of targeting and treatment integrity. In comparing family preservation research results in child welfare with those in mental health and juvenile justice, they found less promising results. However, numerous methodological flaws such as failure to implement a consistent family preservation model and an inability to target children at imminent risk of placement made study results ambiguous. The authors challenged researchers to further test the core elements of family preservation services with specific types of problems and families, refuting that they have been proven ineffective. Pointing out that null findings may indicate a failure of the intervention to achieve desired effects or a

failure of the research to detect program effects, the authors advocated for smaller efficacy studies with consistent service models and homogeneous samples of 65 to 75 families each in experimental and control conditions.

Dagenais et al. (2004) conducted a metaanalysis of studies of intensive family support programs for children at risk of out-of-home placement. Although the researchers refer to the Homebuilders® model, they do not specify that the programs included in their analysis had to meet certain program criteria to be considered "intensive family support programs." Altogether 16 studies met their inclusion criteria, which specified that studies should (1) be conducted between 1980 and 1995; (2) include a control group or a measure of family functioning; and (3) have adequate and sufficient quantitative data. In terms of the effect on placement, the researchers reported that children receiving the intensive family support intervention were placed almost as often as children in the control condition. An important exception is that children in programs targeting specific behavior problems or delinquency had better placement outcomes. Due to differences in the way in which data were reported across studies, the researchers were unable to estimate the net effect of the interventions on children and families. Nonetheless, they noted that the programs had positive effects on general family functioning, parental arrangements, and children's performance. Without further details about program specifications, we question whether these "intensive family support programs" can be equated to intensive family preservation. Furthermore, the researchers expressed concerns regarding treatment integrity of the programs they examined as only 4 of the 16 studies described the degree of program implementation.

Finally, the Washington State Institute for Public Policy (2006) conducted a meta-analysis of intensive family preservation services studies. They identified 14 studies with "rigorous"

experimental designs. Due to concerns regarding treatment fidelity, they sorted the studies according to whether they documented adherence to the Homebuilders'® model of intensive family preservation services. As noted above, their findings suggested that the intensive family preservation programs that adhere to the Homebuilders® model significantly reduce out-of-home placement. This is a very important milestone in that an independent research institute carefully examined the body of IFPS research and confirmed the value of this intervention approach when the program model was implemented with fidelity.

Unfortunately, research on intensive family preservation services continues to be subject to differing and perhaps overly simplistic interpretations. At best, we can argue that it is a question of whether we view the glass as half empty or half full. At worst, we can assert that some IFPS findings are being misconstrued. While we do not expect that this review will put the controversy to rest, we hope to advance our understanding of IFPS research. This paper builds on the analysis of Fraser, Nelson, and Rivard (1997) and examines the findings of more recent studies.

### Method

This study replicates the methodology of the 1997 article by Fraser, Nelson, and Rivard and updates it by including studies published after 1996 that were not in the original article. Although the original article examined family preservation programs in child welfare, juvenile justice, and family-based psycho-education in mental health, this study includes only programs delivered within the child welfare system. In addition, only programs with a goal and outcome measure of placement prevention and a control or comparison group achieved through randomization or matching were included. Finally, evidence of fidelity to an intensive family preservation model including a family focus, empowerment approach, intensity (more than one hour of direct service each week), and brevity was required.

#### **Inclusion and Exclusion Criteria**

Specific inclusion and exclusion criteria were employed. This analysis departed from Fraser, Nelson, and Rivard (1997) in focusing primarily on cases referred to the child welfare system for child abuse and neglect (as far as it could be determined from program descriptions), in excluding reunification studies, and in including studies with non-equivalent comparison groups.<sup>2</sup> The latter was in response to the documented problems in doing random assignment studies in child welfare settings (discussed later) and was intended to represent more naturalistic posthoc studies that replicate more closely actual conditions in the field. Inclusion criteria were as follows:

- 1. Services were family-centered.
- 2. Services were designed to prevent the removal of children from their homes.
- 3. Services were intensive, averaging more than one hour a week.
- 4. Services were delivered primarily in the home.
- 5. Caseloads were small (2 families per worker).
- 6. The intervention period lasted no more than 3 months (90 days).
- 7. The study included a control or comparison group achieved through random assignment, matching, or some equivalent mechanism.

As in Fraser, Nelson, and Rivard (1997) we excluded (a) studies of family-centered casework, family therapy, and other family services for which contact with families averaged one hour or less per week; and (b) studies where children were not viewed as being at risk of placement, incarceration, or hospitalization were excluded.

#### Sample

To obtain the sample for this project, three key procedures were employed. The first was to conduct a thorough search of the literature. This was achieved through searches of online databases, chiefly the *Web of Science and Medline*. Examples of searches of these databases included topic searches for *Family Preservation*, *Placement*, *Family* 

<sup>&</sup>lt;sup>2</sup>Note that one of most rigorous studies of IFPS conducted to date focused on a control group study of children reunified through IFPS who had been in foster care for six months or more in Utah (see Walton, 1998). IFPS reunification services are a specialized use of this intervention technology to accelerate the movement of children to a more permanent living situation. These studies need to be replicated with larger scale projects. In addition, there is a real need for a comprehensive systematic review and meta-analysis of IFPS that adheres to the Cochrane/Campbell procedural standards and includes older as well as more recent studies.

Reunification, Placement Prevention, etc. linked with topic searches for Control Group, Comparison Group, or Random Assignment. Concurrently, we crosschecked references from studies to determine if they might meet project criteria and searched the online web search engine Google and Google Scholar.

The second procedure was a review of the report by the Washington State Institute for Public Policy (2006) titled Intensive Family Preservation Programs: Program Fidelity Influences Effectiveness. This report discussed the fidelity of the treatment group in evaluation studies to the Homebuilders® model and provided a list of those evaluations that met fidelity criteria. Based on our inclusion criteria, this produced two studies: (1) the Michigan study reported by Blythe and Jayaratne (2002) and Walters (2005); and (2) the Westat (2001) study conducted in Kentucky, New Jersey, and Tennessee. Eight of the other studies in the Washington State Institute for Public Policy (WSIPP) analysis had been reviewed by Fraser, Nelson, and Rivard (1997) and three studies were of reunification. All were excluded in this analysis. Two predated the initiation of the family preservation model of services. Finally, studies were identified during research team meetings in which members suggested research that might meet our selection criteria. This produced two more studies for our sample: Ciliberti (1998) and Kirk and Griffith (2004).

#### **Model Fidelity**

Lack of fidelity to a recognizable service model often has been cited as a limitation in family preservation research. WSIPP (2006) found that by dividing studies into those that closely replicated the Homebuilders® model and those that did not, more clarity on effectiveness emerged. Programs with demonstrated fidelity to the model (13 or more of 16 identified components) reduced out-of-home placement by 31%. For those that did not follow the Homebuilders® model closely, there was no

significant reduction in placement in the intervention group.

To determine fidelity to an Intensive Family Preservation Services model, the structural elements of the Homebuilders® program as well as more general criteria for family preservation services were assessed following the 16 standards enumerated in the WSIPP report (2006). As shown in Table 1, the most common structural features include immediate response to referrals (within 24 hours), worker accessibility 24 hours a day, 7 days a week, intensity (12-15 hours a week of services), brevity (90 days for placement prevention), low caseloads (2 per worker), and team back-up. Information on service approaches such as individualized services and a strengths/ empowerment approach, although assessed, was less often available in journal articles and project reports. Some studies shared basic features of family preservation services such as low caseloads, brevity, and services in the home environment, but did not meet strict Homebuilders® standards. For example, the three states in the Westat (2001) study exceeded the time period defined for brief services.

Of the 16 components identified in the WSIPP (2006) study, enough information was available in most of the study reports to assess 14 of the 16 (24-hour availability for intake was assumed for programs that reported accessibility to services 24 hours a day, 7 days a week). Of the three programs demonstrating fidelity to the Homebuilders® model, only Kirk (2000) and Kirk and Griffith (2004) failed to report enough information on services to document standards 13 (flexible, responsive services), 14 (interactive assessment and goal setting), and 15 (teaching skills) (see Table 1). The data available for the three Westat (2001) sites were incomplete for intensity (standard 5), single therapist with team back up (standard 9), and flexible, responsive services (standard 13). Of the Westat sites, Tennessee had the most missing data (6 out of 13 standards).

None of the studies reported enough information to assess WSIPP (2001) standards regarding 24/7 availability of consultation (standard 11) or regular tracking of outcomes (standard 12) apart from the research studies themselves. Only two of the four studies reported here were included in the Westat sample. As in this analysis, Michigan (2002) was classified as demonstrating fidelity to the Homebuilders'® model and the Westat study (2001) was classified as not demonstrating fidelity. Ciliberti (1998) and Kirk (2000) and Kirk and Griffith (2004) were not included in the WSIPP meta-analysis.

**Table 1: Program Characteristics** 

Study	High Risk	24/7 Availability	Immed Response	Home- Based	Intensity 2-15 Hrs	Brevity < 12 weeks
Home- builders' standard	1. Placement imminent	2/7. 24/7 availability	3. Contact within 24 hours	4. Natural environ- ment	5. I2-15 hours/wk	6. 6 – 12 weeks
Ciliberti 1998	74% high risk	Yes	2/3 w/in 72 hrs	Yes	NA	92% < 8 weeks
Kirk 2000, 2004	39% high 48% med	Yes	1.67 days	Yes	13-16 hrs	100% < 6 weeks
Mich. 2002, 2005	100% court ordered	Yes	Within 24 hrs	Yes	15 hrs	100% < 6 weeks
Westat 2001	Study Sites:					
Kentucky	Medium	Yes	Within 24 hrs	Yes	NA	36% < 8 weeks
New Jersey	Medium	Yes	Within 24 hrs	NA	NA	69% < 4-6 weeks
Tennessee	NA*	Yes	NA	NA	NA	66% < 4- 6 weeks

<sup>\*</sup>Information not available in article or report.

Case-load 2-6	Team	Training	Indivi- dualized Services	Strengths/ Empower- ment	Teaching Skills	Concrete Services
8. 2 (5 with para- professional	9. Single worker w/ team back-up	10. Flextime/ training	13. Flexible/ responsive services	14. Interactive assessment / goal training	15. Teaching skills	16. Concrete services plus advocacy
2	Yes	Home- builders	Yes	Yes	35% parent training	Yes, plus flex funds
2–4	Single	Yes	NA	NA	NA	Yes
2	Single	Home- builders	Yes	Yes	33% parent training	3/4 flex funds advocacy
2	NA	Home- builders	NA	Yes	19% parent training	1/3 flex funds
2	NA	Home- builders	NA	Yes	10% parent training	<15% concrete
2	NA	Home- builders	NA	Yes	8% parent training	20% concrete

#### **Targeting**

A second problem that has plagued studies of family preservation services is targeting highrisk families both in order to provide services to appropriate families and to determine the effectiveness of programs. Although "imminent risk of placement" has been a requirement for referral to most programs, it has been operationalized in many different ways, most of them ineffective in assuring that families in the

control or comparison group experienced the expected high rate of placement that is necessary to test the effectiveness of a placement prevention service. Studies of reunification services avoid this problem since all of the children are in placement at the time of referral (e.g., Walton, Fraser, Lewis, Pecora & Walton, 1993; Rzepnicki, Scheurman, & Johnson, 1997).

In the initial report of his statewide study in North Carolina, Kirk (2000) attempted to resolve

Table 2: Risk Factors

	Level of	of Risk cement <sup>a</sup>	Prior Placement		Prior Substantiated Maltreatment			
Study	Intervention Group	Comparison Group	Intervention Group	Comparison Group	Intervention Group	Comparison Group		
Ciliberti 1998	74% High	78% High	63%	26%	80%	35%		
Kirk 2000	39% High	23% High	17%	6%	36%	13%		
Kirk & Griffith 2004	100% High	100% High	8%	2%	44%	19%		
Michigan 2002, 2005	100% Petition	100% Petition	NA	NA	NA	NA		
Westat 2001 Study Sites:								
New Jersey	Medium	Medium	27%	27%	53%	53%		
Kentucky	Medium	Medium	33%	33%	47%	47%		
Tennessee	NA	NA	28%	28%	41%	41%		

<sup>&</sup>lt;sup>a</sup> Level of risk for placement was assessed in different ways across the various studies.

the targeting problem by using a risk assessment tool that identified medium- and high-risk families with predictive validity (see Wildfire, Usher, & Gogan, 2001, for this analysis). Absent a widely-used and well-validated risk assessment tool, however, several other methods have been used to select high-risk intervention and control groups mostly through screening by a supervisor or committee. Table 2 displays available data from the studies on family risk level (measured differently in each study), prior placements, and prior substantiated maltreatment reports for the intervention and comparison groups.

It is notable that even in samples described as high risk, there is considerable variability among the studies and between the intervention and comparison groups. It should be noted that the Michigan study did not supply data on prior placement or substantiated maltreatment and that the Westat study report did not break down the data between intervention and control groups, but reported them for the sample as a whole. In most cases, risk factors were more prevalent in the IFPS intervention groups than in the comparison/control groups.

#### **Data Analysis**

For this project, we looked at the outcome variable of prevention of out-of-home placement between an intervention and control/comparison group. Effect sizes were calculated to compare the magnitude of difference between the two groups (Fraser, Nelson, & Rivard, 1997) and to enable comparison across studies. Because most of the studies in our sample only reported placement outcomes as a proportion, the common method of calculating effect sizes by Cohen's *d* or Glasses' *delta* was not possible. Therefore, Cohen's arcsine transformation was used to calculate effect sizes (Cohen, 1988; Lipsey, 1990) using the following:

$$ES_p = \Phi_t - \Phi_c$$

Where ES<sub>p</sub> is the individual effect size between groups,  $\Phi$  represents the arcsine transformation for the success proportion of the treatment group, and  $\Phi_{c}$  represents the arcsine transformation for the success proportion of the comparison group (Fraser, Nelson, & Rivard, 1997; Lipsey, 1990). Lipsey (1990) provides the table from which the arcsine transformations can be obtained and calculated. In addition to effect sizes for the entire sample, effect sizes were calculated for all reported sub-samples that met inclusion and exclusion criteria. No attempt was made to calculate mean effect sizes across studies due to the small number of studies and the substantial variation in their designs. (See Appendix A for a discussion of an alternative approach to calculating effect sizes.)

### Results

#### Studies Included

Listed in order of publication, the three studies that align most closely with Homebuilders® standards are the Family Enhancement Program in Oregon, (Ciliberti, 1998), the Intensive Family Preservation Services Program in North Carolina (Kirk, 2000; Kirk & Griffith 2004, 2007), and the Families First Program in Michigan (Blythe & Jayaratne, 2002; Walters, 2005; Zeira, Blythe & Reithofer, 2006).

#### **Family Enhancement Program**

The Family Enhancement Program (FEP) is part of Self-Enhancement, Inc. (SEI), a communitybased agency that provides services to African-American families in Portland, OR. SEI is staffed mostly by African Americans who are residents of and active participants in the community. Services are based on the Homebuilders® model and embedded in the community-based ecological approach of the parent organization. FEP staff was originally trained by Homebuilders® staff and FEP adheres to the key elements of the Homebuilders® model: low caseloads (2 families per coordinator); flexible intensive family services provided over a brief time period (4 to 8 weeks); and a concentration on skill building and the establishment and repair of relationships. For the majority of families, initial contact occurs within 24 hours of case assignment and two-thirds are contacted within 72 hours. Workers are available 24 hours a day, 7 days a week. Services are familyoriented, primarily in-home, and include weekly parenting and support groups. Common services included substance abuse treatment, assistance with housing, transportation, and mental health services (Child Welfare Partnership, 1995).

FEP services are targeted at families with children under the age of six who are at risk of placement due to substantiated abuse or neglect, or threat of harm due to neglect. After referral, cases are screened by a public agency worker who excludes from referral to IFPS cases of sexual abuse in which the perpetrator is still in the home and extreme cases of physical abuse in which the safety of the children cannot be assured. In the Level of Vulnerability risk assessment tool used by the state, 40% of the families were in the highest risk category due to the age of the child and the severity of abuse and 74% were in the top three risk levels that included life-threatening/ chronic neglect (26%), drug-affected infants (22%), abandoned/deserted or incarcerated parent (17%), and severe and frequent physical abuse (6.5%). Over half the families (62%) were referred for neglect and 39% for physical abuse. Corresponding with the high level of risk, the average age of the target child was 2.6 years. Over 60% of the families had experienced prior placements (Ciliberti, 1997).

In this study, 42 families with completed administrative data out of the first 46 families who finished FEP services were matched to 43 regular service cases on referral reason, level of risk, child's age, and number of children in the family (Ciliberti, 1998). Although there were no significant differences as to child's age (2.6 years in FEP versus 3.5 years in the comparison sample), number of children (2.7 in both samples), referral for neglect (62% versus 63%), and months open for service in the child welfare agency (44 months versus 42 months), there was a small but statistically significant difference in prior placements (1.7 in FEP versus .8 in the comparison sample) and prior reports of maltreatment (1.1 in FEP versus .5 in the comparison group).

# North Carolina's Intensive Family Preservation Services Program

The Intensive Family Preservation Services Program in North Carolina (IFPS Program) is a statewide program following the Homebuilders® model that is provided by contract in 51 of 100 counties in North Carolina. The parameters of service are defined in the initial report of the study (Kirk, 2000). State statute, policies, and standards require a 6-week limit on service, specify the location of services, identify specific activities to be performed, and prescribe the proportion of time spent in face-to-face contact with families. Quality assurance measures have documented compliance on an annual basis starting in 1994 (Kirk, 2000). In addition, a fidelity study of seven states' IFPS programs documented that the North Carolina program has written standards of practice, mandatory training, a single therapist, response within 48 hours, availability of workers 24 hours a day, 7 days a week, flexible funds for concrete services, and caseloads of 2 to 4 families (Kirk & Griffith, 2007).

A "scientifically rigorous" evaluation of the statewide IFPS Program was mandated by the state in 1999 (Kirk, 2000, p. 2). The study is a retrospective, matched groups design using data from existing child welfare databases (the IFPS Program database, the North Carolina Child Abuse and Neglect System, and the AFCARS database). A standardized instrument, the North Carolina Child Protective Services Risk Assessment instrument (Wildfire et al., 2001), operationalized risk in both the intervention and the comparison groups. In cases rated "high" risk, state statute mandates that the child must be immediately removed unless an alternative plan is implemented (Kirk & Griffith, 2004).

In the original study, IFPS cases (3,258 unduplicated children) were linked in the databases yielding 1,803 cases with complete data. This was reduced to a sample of 1,265 by removing cases in which the type of maltreatment

was unknown, cases of dependency, and cases with no substantiated report prior to receiving IFPS. The same selection process reduced the 146,464 non-IFPS cases to a sample of 110,622 (59,398 from counties with IFPS and 51,224 from counties without IFPS) (Kirk, 2000). Comparison cases received usual services including counseling, parent training, mental health services, protective services, day care, and foster care on an individual basis.

IFPS and non-IFPS cases differed slightly in that there was less neglect, a more injurious environment, more physical/emotional abuse, less sexual abuse, and more multiple types of abuse in the IFPS sample (Kirk, 2000). Although the differences were very small (1-2.5%), they were statistically significant due to the large sample size. In addition, 39% of IFPS cases were rated as high risk, compared to 23% of non-IFPS cases. Similarly, 36% of IFPS cases had prior substantiated maltreatment, compared to 13% of non-IFPS cases. Finally, 17% of IFPS cases had experienced a prior placement, compared to 6% of cases in the same counties, and 5.1% of cases in non-IFPS counties (Kirk, 2000). Placement was defined as any placement that occurred between the date that the case was referred to IFPS and one year after the referral. For the comparison group, the time period was defined as 365 days from the date of a substantiated maltreatment report (Kirk, 2000).

A secondary analysis of the original data set focused only on high-risk cases and excluded those where services did not comply with Homebuilders<sup>®</sup> standards in terms of immediate contact and closure within 6 weeks. The sample for this analysis comprised 542 IFPS cases and 25,722 non-IFPS cases in the same counties. These are the data that are used in this analysis (Kirk & Griffith, 2004).

#### Michigan's Families First Program

The third study in the sample is *Michigan's* Families First Program. The program was implemented in 1988 as an alternative to foster care and follows a detailed intervention manual. A treatment fidelity study was conducted with 103 families randomly assigned to IFPS and 48 families randomly assigned to foster care from a group of 202 families for whom a family court judge or referee had authorized an initial petition for removal (Zeira et al., 2006). This study confirmed adherence to Homebuilders®' standards with caseloads of two families, an average of 27 days of service with 66 hours of face-to-face contact, 24-hour availability of workers, and family participation in goal setting. Three-fourths of the families received flexible funds with an average amount of \$304 per family, most often for recreation (21%), housing (19%), furniture and/or appliances (18%), and groceries (18%) (Zeira et al., 2006).

On a referral basis, 33% of the families received parent training, 24% received childcare or babysitting services, and 19% received financial assistance for housing and family planning services. In addition, workers directly provided training in anger management, negotiation, parenting, and budgeting skills, and help with household maintenance (Zeira et al., 2006).

The main study included a randomized control group design with cases randomized after a court petition for placement of at least one child due to substantiated abuse or neglect had been signed by a judge and after two screeners had assessed cases for Michigan's IFPS inclusion and exclusion criteria. After randomization, in cases assigned to the control group, all children were placed in foster care. Many problems in previous IFPS studies were addressed in this study. Only sites that had been in operation for a minimum of 6 months were included in the study, extra slots were added to the sites to accommodate study families without refusing service to

families referred through regular procedures, and intervention fidelity was monitored throughout the study period with workers following a treatment manual (Walters, 2005).

From a total of 475 referred cases, families were excluded if more than two weeks had elapsed from the time the petition had been signed and the completion of the baseline interview, if the family refused IFPS services or refused to participate in the study, if a control group family requested IFPS, or if referring workers strongly believed the family should receive IFPS. Michigan's usual criteria for accepting families into IFPS also were followed. Exclusion criteria included a history of chronic child neglect, homelessness, safety threats to workers, family denial of a problem, serious mental illness, family unwilling or unable to work to meet the child's needs, and ongoing risk of sexual abuse. Inclusion criteria were that the child could be maintained safely in the home, less intensive services were not adequate, at least one parent was able and willing to participate in services, the referring worker could identify family strengths and thought that the family would benefit from IFPS, and there was no criminal activity in the home (Walters, 2005). The families of children that went into kinship care were also excluded.

After exclusion and inclusion criteria were applied, a total of 202 cases were available for random assignment, 120 were assigned to the experimental group (IFPS) and 82 to the control group (placement). Administrative data were available at follow-up, which was 12 months after entry in the study, on all 202 cases (Walters, 2005).

## Westat Study of Kentucky, New Jersey, and Tennessee

The final study in the sample shared the common characteristics of IFPS: a family focus, empowerment approach, intensity (more than

one hour of direct service each week), and brief services. In addition placement prevention was a primary goal, but in implementation the programs did not conform rigorously to the Homebuilders® model (see Table 1). The Westat study was a result of a congressional mandate to provide information for the reauthorization of the Adoption and Safe Families Act (Westat, 2001). Programs in three states, Kentucky, New Jersey, and Tennessee, were chosen as close approximations of the Homebuilders® approach to family preservation. Three programs in nine sites were selected: one office (Louisville) of a statewide program in Kentucky; seven counties representing the statewide program in New Jersey; and one office (Memphis) of a statewide program in Tennessee.

In all three states, selection criteria, training, contracting, and program oversight were centralized, and all recognized targeting appropriate families as an issue (Westat, 2001). In each site, cases from the public child welfare agency were screened for appropriateness before referral. A screening tool was developed using a risk index that included items such as previous substantiated complaints, previous foster care placements, and the presence of substance abuse (Westat, 2001). New and ongoing cases that were considered high risk and would have resulted in placement were screened in and reunification cases in which a child had been out of the home for more than 7 days were screened out.

The study design randomly assigned families to either the family preservation program or to regular services. All measures were completed on both groups with a follow-up interview one year after entry into the study. Children were tracked for up to 18 months using administrative data on placements, reentries, and subsequent abuse and neglect allegations. After excluding a few cases deemed inappropriate after random assignment, in Kentucky there were 154 cases in the experimental and 152 cases in the control group, in New Jersey there were 269 cases in

the experimental and 165 cases in the control group; and in Tennessee there were 93 cases in the experimental and 47 cases in the control group (Westat, 2001). Since there were significant variations among sites, they are described separately below.

In Kentucky the goals of the statewide program, established in 1985, include maximizing safety, stabilizing families in crisis, goal setting with families, teaching skills, and empowering the family to make changes. Services are to be delivered in the family's home or community and last no longer than eight weeks with an average of 20 hours of service each week. Workers carry a caseload of 2 families, are available 24 hours a day, 7 days a week, and must make a home visit within 24 hours of referral.

In Louisville, cases from the public child welfare agency and those that had a petition in family court were screened for the study and referred to the provider agency. An agency-based screener made referrals to Westat for random assignment if there was an opening, if the family scored in the mid-range (3-5) of risk using the risk assessment tool developed for the study, or if the screener made a case for including those scoring under 2 or over 5. Approximately 633 cases were referred with 306 included in the analyses comparing FPS (n=154) or the control group (n=152). The average risk score was 4.2 with 77% falling between 3 and 5. One-third had a child previously placed in foster care and 47% had previously substantiated neglect and abuse allegations.

Although modeled on the Homebuilders® program, 64% of the experimental cases were open longer than the specified 6-8 weeks, only 35% received flexible funds, and 19% received parent training; however, nearly 80% of the families reported a strengths orientation and workers were "adamant in their belief in the Homebuilders® philosophy, particularly its emphasis on respecting clients, self-determination,

and advocating for clients" (Westat, 2001, p. 3.9). The most common service provided was counseling (52%) and the most common topic was discipline (55%). Kentucky served the youngest children, with an average age of the youngest child at 5 and of the oldest child at 10.

In New Jersey the study encompassed seven counties each with a single not-for-profit provider agency. The statewide program began in 1987 using a Homebuilders® model. All FPS workers are trained in a consistent program model, but counties maintain some autonomy. Each worker has a maximum of 2 cases at a time, is required to make an initial visit within 24 hours, is available 24 hours a day, 7 days a week, and is to provide an average of 10 hours of direct service each week for a maximum of 4 to 8 weeks. Limited flexible funds averaging \$75 per family help with concrete needs or as reinforcement for progress. A statewide family preservation standards manual outlines eligibility criteria and new workers are trained in content and philosophy. For this study workers in six of the seven counties agreed to use the risk screening protocol, but it was completed on only 56% of the referrals. By agreement with the state, 60% of the accepted cases were randomly assigned to the experimental group and 40% to the control group.

Although the state was attempting to redirect services to younger children at risk of abuse or neglect, most of the referrals were ongoing adolescent-parent conflict cases rather than cases of abuse or neglect with average ages of the youngest and oldest children at 7 and 13. Many alternative services had already been offered and the cases had been open for months or years. Although most cases came from the public agency, over 25% came from family court and other county services. Of the cases, 67% had previous substantiated abuse and neglect and 27% had prior placements. Three-quarters scored between 2 and 5 on the risk protocol. Only 31% of the cases were open longer than 4 to 6 weeks, less than 15% received concrete services, 70%

reported a strengths orientation, 10% received parent training, and 56% received counseling with 60% discussing discipline.

In Tennessee, a statewide pilot family preservation program based on the Homebuilders® model was initiated in 1989 aimed at children who were seriously emotionally disturbed and at youthful offenders. The program was expanded statewide in 1991 and in 1992 started serving child abuse and neglect cases. Since 1997 Tennessee has been moving toward a managed care model with numerous changes in funding and referral structures.

The HomeTies program in Memphis is delivered by a private community mental health center and follows the cognitive-behavioral approach of Homebuilders®. All staff are trained by Homebuilders®, carry 2 families for 4 to 6 weeks of service, are available 24 hours a day, 7 days a week, and have access to \$250 per family in flexible funds. Cases involving lifethreatening physical abuse, sexual abuse in which the perpetrator is still in the home, and severe substance abuse are not eligible for referral nor are cases in which the parent is requesting placement or the family refuses services. CPS workers use the risk assessment form to identify high-risk cases. A small proportion of cases are turned back (2-3%) due to lack of cooperation by the family, family violence that puts the worker at risk, or lack of imminent risk of placement. Only cases referred by the public child welfare agency and undergoing an investigation for abuse or neglect were included in the study, although 40% of HomeTies referrals come from community service agencies, the juvenile court, and mental health centers.

Referral procedures were modified for the study, causing a decline in referrals. Instead of referring directly to an IFPS worker, referrals went through screeners to determine if the primary child was under 13, not a juvenile court case, and not already in foster care. Eligible cases were referred

to Westat for randomization if there was an opening. As a result workers stated that they diverted referrals to the nine other programs in the county that provided intensive family services, one in the same agency using some of the same workers. Many referrals involved parent-child conflict and approximately 65-70% had substance abuse problems. The average ages of the youngest and oldest children were 4 and 11 years. Just over a third of the cases were open longer than 4-6 weeks, 20% received concrete services and 8% received parent training. Over 80% reported a strengths orientation but, unlike the other sites, the most common service was daycare (26%). Only 17% received counseling, but 70% discussed discipline.

Although the programs in Kentucky, New Jersey, and Tennessee were modeled after the Homebuilders® program, they departed from the model in implementation. Overall they had longer service periods, fewer concrete services, and less parent education than required by the Homebuilders® model. At the end of the study, it was determined that, as in many studies, it was difficult to target families at imminent risk of placement as very few cases in the control group were placed within the first month (5% in Kentucky, 6% in New Jersey, and 11% in Tennessee). The study authors concluded that "it would, therefore, have been virtually impossible for the programs to be effective in preventing imminent placement, since very few families would have experienced placement within a month without family preservation services" (Westat, 2001, p. 9-3).

#### **Effect Sizes**

Using the same method for calculating effect size as the 1997 analysis, a range of effects was found among more recent studies of intensive family preservation services (see Table 3). Following

Lipsey's (1990) categorization of effect sizes as small (00-.32), medium (.33-.55), and large (.56-1.20), there was only one large effect size. In Michigan a large effect (.77) was found with 93% of the intervention group families intact at 12 months compared to 63% of the control group (Blythe & Jayaratne, 2002; Walters, 2005). Two studies with post-hoc comparison groups showed small or no effects until initial differences between the intervention and comparison groups were controlled in multivariate analyses. Ciliberti's (1998) study showed a small effect (.26) for the entire study sample with a success rate of 62% for the intervention group and 49% for the comparison group. In North Carolina (Kirk & Griffith, 2004), in the total sample of highrisk cases 73% of both intervention and control children avoided placement with no intervention effect. However, to determine and control for the effect of each independent variable (including prior placements) on placement outcomes, Kirk and Griffith (2004) employed a Cox proportional hazards regression model and found that only 19% of the entire sample of IFPS cases were in placement at the end of the 12-month follow-up compared to 36% of comparison cases. Unlike the uncontrolled survival analysis, this difference was statistically significant. The states in the Westat (2001) study showed no effects.

Breaking the samples in some studies down into high-risk sub-samples produced more significant effects than in the sample as a whole. In North Carolina (Kirk & Griffith, 2004) a medium effect (.55) was found in a small sub-sample of cases with prior placements. (See Table 4.) Over 80% of the intervention group avoided placement compared to 56% of the comparison cases. Cases with prior founded maltreatment reports showed an effect of .17 with 71% of intervention and 63% of comparison families intact. The only other sub-sample to show a medium effect (.35) was composed of cases in Kentucky that had

<sup>&</sup>lt;sup>3</sup> Lipsey's (1990) categorization of effect sizes was developed specifically for treatment effectiveness research in the behavioral sciences, and so this was used instead of the more general categories developed by Cohen.

family court petitions filed. Over 80% of the intervention cases avoided placement compared to two-thirds of the control group.

#### Child Maltreatment Subsequent to the Onset of IFPS

The IFPS studies included in this review that measured subsequent maltreatment indicated that children in experimental groups experienced subsequent maltreatment at a rate similar to children in foster care/control/comparison groups.

In fact, this comparable rate between groups is sustained over time. For example, at 6- and 12-month follow-up intervals, Ciliberti (1998) found no statistical significance in subsequent maltreatment rates between children in the family-based service group and children in the regular service group. Similar findings of non-significant differences in maltreatment rates between groups were noted by Westat (2001). Subsequent substantiated maltreatment rate equivalence between groups in all three states remained evident even at the twelve-month

**Table 3: Effect Sizes of Comparison- or Control-Group Studies** 

		Intervention Group		С	Comparison Gro			
Type of Outcome by Study	Data Collec- tion Period	No. of Successes	Total	%	No. of Successes	Total	%	Effect Size
Ciliberti 1998	12 months	26	42	62%	21	43	49%	.26
Kirk & Griffith 2004								
High Risk	12 months	396	542	73%	18,777	25,722	73%	.00
Prior Maltreatment	12 months	168	237	71%	3,004	4,769	63%	.17
Prior Placement	12 months	34	42	81%	265	473	56%	.55
Michigan 2002/2005*	12 months	112	120	93%	52	82	63%	.77
Westat 2001 Study S	ites:*							
New Jersey	12 months	188	269	72%	126	167	78%	14
Kentucky								
High Risk	12 months	114	154	77%	111	152	76%	.02
Petition Cases	12 months	24	29	82%	21	31	67%	.35
Tennessee	12 months	70	93	77%	37	47	81%	10

<sup>\*</sup>Randomized control group study.

follow-up point.<sup>4</sup> Michigan's Families First program produced identical, non-significant differences in rates of maltreatment between experimental and control groups (Walters, 2005). Such trends are notable in that they suggest that children receiving family-based services in these studies experience the same level of physical safety

as participants who receive more traditional child welfare services. Critics of family preservation and reunification often argue that children will be at increased risk of future maltreatment if left in or returned to the care of their families (Blythe, Salley, & Jayaratne, 1994; Maluccio, 1997; Maluccio & Whittaker, 1997).

Table 4: Comparison of Child Welfare Studies by Effect Sizes

			Referral Reason					
Study by Size of Treatment Effect	Effect Size	Child Age (years)	Parent	Child	Programs	Sites	No. of Families	Control Placement at 12 months %
Michigan 2002, 2005*	.77	7.7	100% abuse/ neglect		1	8	202	37%
Ciliberti 1998	.26	2.6	62% neglect		1	1	85	51%
Kirk 2004	.00	75% > 11	85% neglect/ environmental		1	51	26,264	27%
Westat 2001 Stud	ly Sites:	<b>k</b>						
Kentucky	.02	5-10			1	1	306	24%
Tennessee	10	4-11			1	1	140	19%
New Jersey	14	7-13			7	7	434	22%
Sub-Samples:								
Kirk 2004 Prior Placement	.55	75% under 11	85% neglect/ environmental		1	51	515	44%
Kentucky Petition Cases	.35	5-10			1	1	60	33%
Kirk 2004 Prior Maltreatment	.17	75% < 11	85% neglect/ environmental		1	51	5,006	37%

<sup>\*</sup>Randomized control group study.

<sup>&</sup>lt;sup>4</sup>The Westat study collected detailed (child-level) data on maltreatment reports, but collapsed this at the family level in the analysis to avoid dependencies (this results in a form of "nesting" bias). (Julia Littell, personal communication, April 2, 2008).

## Discussion

#### **Key Findings and Themes**

In some ways, these findings replicate those of Fraser, Nelson, and Rivard (1997) and highlight the same issues: targeting, treatment fidelity, and methodology. However, in other ways they present promising new findings: the replicability of the intervention, the need to consider and target risk factors, and additional evidence of effectiveness with child welfare populations. Table 4 updates information presented in the original article. While the differences in placement rates in between the groups in some studies were not striking, other rates are quite different. For example, the programs were more successful than in the previous analysis with child welfare problems, and studies with large samples and multiple sites had more positive outcomes (Fraser, Nelson, & Rivard, 1997).

#### **Targeting**

Targeting remains an issue both in delivering services to the appropriate population and in interpreting study results. It has proven difficult to identify cases at high risk of placement despite the addition in many studies of a structured risk assessment. Table 2 shows the wide variance in risk factors represented in the studies. Of most concern is the variability in the percentage of children in placement at the end of 12 months in the control or comparison groups (see Table 4). In general, the higher the percentage of children in the control/comparison group in care at the end of the follow-up period, the higher the effect size. In the WSIPP (2006) analysis, 54% of the comparison group children in the most effective programs were in placement at follow-up. In this analysis, 33% to 51% of the children in the comparison groups in studies with medium to high effects were in placement. A key factor in achieving significant effects for the intervention, therefore, seems to be that cases at high risk of placement were successfully targeted either by

studying subgroups with prior placements (Kirk & Griffith, 2004) or cases with court petitions for placement already filed or signed (Kentucky for Westat, 2001; Walters, 2005).

#### **Fidelity**

In this analysis, we paid close attention to the fidelity of the interventions to identified parameters of IFPS. Most of the studies with medium-to-high effect sizes exhibited fidelity to the Homebuilders® model. Despite the fact that only two studies conducted formal assessments of fidelity (Kirk & Griffith, 2007; Zeira et al., 2006), as the WSIPP (2006) study found, it is possible to assess fidelity to the Homebuilders® model using descriptive data reported in studies. It should be noted that although the programs in the Westat (2001) study were initially deemed to be close approximations of the Homebuilders® model, they were categorized in the WSIPP (2006) analysis as non- Homebuilders® due to significant departures from the model in implementation.

The Michigan study produced the most detailed data on fidelity. The treatment fidelity study cited above (Zeira et al., 2006) confirmed adherence to Homebuilders® standards with caseloads of two families, an average of 27 days of service with 66 hours of face-to-face contact, 24-hour availability of workers, and family participation in goal setting. In addition the study documented services including flexible funds [most often for recreation (21%), housing (19%), furniture and/or appliances (18%), and groceries (18%)]; training in anger management, negotiation, parenting, and budgeting skills; and help with household maintenance. Referral services included parent training, childcare or babysitting, and financial assistance for housing and family planning services (Zeira et al., 2006). Although substantially a Homebuilders® program, the Michigan Families First Program expanded

services to include families currently using drugs or abusing alcohol and provided a more diverse range of concrete services such as helping families repair plumbing problems or rewire electrical systems (Walters, 2005).

In examining outcomes other than placement, Walters (2005) found significant changes in social support for Families First caregivers from baseline to the 12-month follow-up equal to the level of support the foster care sample received. Families First families also were equivalent to the foster care sample in maltreatment reports, school behavior, child well-being, and parenting skills. Self-reports of domestic violence decreased significantly in both groups over the study period (Walters, 2005).

These data suggest both that children headed to foster care can be maintained in their own homes with short-term outcomes comparable to foster care and that analyses need to extend beyond structural elements of the model to include further exploration of program components contributing to these outcomes. Specifically, standards of evidence-based practice in child welfare (California Evidence-Based Clearinghouse for Child Welfare, 2008) require a logic model that links risk factors with interventions and outcomes. Although a logic model was not included in research reports of the Michigan study, risk factors such as poverty, housing problems, overwhelming child care needs, and lack of family cohesion and social support seem to have been addressed through financial assistance, household management, housing services, child care, family planning, and recreational opportunities all of which were more often provided to IFPS families (Ziera, Blythe, & Reithoffer, 2006). Further study should investigate through multivariate analyses whether specific services contribute to placement prevention and whether sample differences, such as a larger percentage of families with substance abuse problems (43.8% of the foster care sample and 17.5% of the IFPS sample) and domestic

violence (33.3% of foster care and 13.6% of IFPS), account for improved outcomes.

Examinations of model fidelity also should extend beyond the characteristics of direct services to include the climate and culture of the organization (Glisson, 2007). Careful recruitment, training, and supervision have been characteristics of family preservation programs from their onset and are posited to be key components in successful home-visiting programs (Nelson, Cahn, & Holliday, in press). In the case of the Michigan study, it may be important that the ethnicity of the workers mirrored that of the client population (70.9% of IFPS workers were African American compared to 68.9% of the mothers receiving services) and that an empowerment approach was implemented (93.2% of IFPS families participated in setting treatment goals compared to 29.2% of the foster care sample) (Ziera et al., 2006). Organizational characteristics, although difficult to measure and model, may prove to be as or more important than the structural characteristics of the intervention.

#### **Methodological Concerns**

**Control and Comparison Groups** 

Only two studies in this sample attempted random assignment. The Michigan IFPS study effectively implemented a random assignment design using cases for which a court petition had already been signed for removal of a child from the home. Two screeners applied extensive inclusion and exclusion criteria before random assignment, and the addition of special slots for the study insured that no families were denied IFPS services (Walters, 2005). Significant differences in placement outcomes between the experimental and the control group were found at the 12-month follow-up.

The Westat (2001) study employed randomization but encountered great resistance

and acknowledged the various and creative ways that referring workers obtained services for families. Despite assigning more families to the intervention group than to the control group in New Jersey and Tennessee and randomizing centrally, the Westat (2001) study had difficulty in getting appropriate referrals, as workers resisted risking that families in need of services would be assigned to control groups. Workers, instead, increased referrals of reunification cases, since they were excluded from randomization. In some areas lower risk cases were accepted to keep study caseloads full, thus compromising targeting and reducing placement rates in the control group. In qualitative interviews, workers said that denying needed services to families was unethical and that they went to great lengths to patch together other services for control group families, again reducing differences between the experimental and control groups. In other situations, a lack of foster homes kept children in the control group at home also skewing placement outcomes. These problems are common in randomized studies in naturalistic settings (Rossi, 1992). However, detailed analyses comparing all cases according to their initial assignment to experimental or control conditions (intent to treat) and subsequently dropping the few cases that involved violations of randomization or minimal service, found similar results, that is, no significant differences between experimental and control groups in any of the sites.

The quasi-experimental design studies created comparison groups from administrative data without interfering with the usual procedures for assigning families to IFPS and later controlling for some of the initial group differences through multivariate analyses. Kirk and Griffith (2004) drew a very large comparison group from administrative data, using the same criteria that qualified families for intensive services. Despite using a statewide risk assessment tool to select high-risk cases (Wildfire et al., 2001), far more intervention than comparison families had

prior placements (see Table 2), and only 27% of comparison group families who were rated as high risk had a child in placement at the end of the 12-month follow-up.

As reported earlier, to determine and control for the effect of each independent variable (including prior placements) on placement outcomes, Kirk and Griffith (2004) employed a Cox proportional hazards regression model and found that only 19% of the entire sample of IFPS cases were in placement at the end of the 12-month follow-up compared to 36% of comparison cases. Unlike the uncontrolled survival analysis, this difference was statistically significant.

Ciliberti (1997) also constructed a matched comparison group from administrative data. Although cases were matched as to reason for referral, risk level, child's age, and number of children in the family, the intervention group was at much higher risk in terms of prior maltreatment and prior placements (see Table 2). Similar to the North Carolina study, a two-way analysis of variance, controlling for initial risk level, showed highly significant differences in effectiveness between the intervention and comparison group (Ciliberti, 1998).

#### **Sub-Sample Effects**

The only significant positive effect found in the Westat (2001) study states was in a subgroup of cases in Kentucky that already had court petitions filed for placement. This group had an effect size of .35 compared to .02 in the total sample but the difference in placement rates in this small sample was not statistically significant. Kirk and Griffith (2004) analyzed sub-samples of cases with prior substantiated maltreatment (effect size of .17) and prior placements (.55) and found effects where there had been none in the uncontrolled analysis of high-risk cases. Although selection bias frequently occurs in more naturalistic quasi-experimental designs and in sub-group analysis in studies with random assignment, in most

cases, the IFPS groups have more risk factors at the outset and better outcomes at the end of 12 months, suggesting that any bias is in favor of the comparison group not the intervention group.

#### Non-IFPS Service Comparability and Sustained Effects

A key element that is often overlooked is measurement of the services received by the comparison or control group. In the Westat (2001) study, Memphis had a rich array of intensive services available to control group families, including another program in the same agency that employed some of the same workers as the IFPS program (Westat, 2001). Nor are services received after the termination of IFPS and before 12-month follow-up documented. In some cases, these include aftercare or "booster shots" that are part of the planned intervention (Ciliberti, 1998; Kirk & Griffith, 2007). In addition, the ethnicity and cultural differences among sample populations and the role of kinship care have been insufficiently studied.

To be assessed as an efficacious practice, standards of evidence-based practice in child welfare call for a sustained effect for at least one year (California Evidence-Based Clearinghouse for Child Welfare, 2008). Most studies track outcomes over a 12month period and a few did more frequently, most often at 6 months. Both Feldman's (1991) study in New Jersey and the Fraser et al. (1991) Utah study found a drop-off in intervention effects from closure to 6 months and between 6 and 12 months. Kirk and Griffith (2004) also documented an attrition of effectiveness between 4 and 7 months after intervention and recommend including post-IFPS services or "booster shots" in the model to sustain program effects. Both Ciliberti (1997) and the Westat study (2001) also documented increases in placement rates between the 6- and 12-month follow-ups.

#### **IFPS Worker Preparation**

Evaluators usually do not document the training provided to family members by workers. For example, whether workers use manuals or protocols, how any training is provided, and how much training is provided? Even fewer document changes in skill as a result of training (Mark Fraser, personal communication, April 1, 2008). Although all of the studies reviewed in this analysis indicated that workers were trained at the beginning of the research project, they gave few details on the nature or effectiveness of the training. To enhance generalizability, the Michigan study only included workers whose intervention programs were at least six months old and, therefore, had the advantage of experience as well as training.

#### **Measurement of Additional Outcomes**

Multiple measures of intervention effectiveness may enhance the comprehensiveness of the program evaluation. As with summative research in other areas, much of the family preservation research demonstrates increased reliance on the use of multiple measures to assess a variety of outcomes (Walters, 2005). Inclusion of multiple measures offers a multidimensional examination of family functioning. After all, family preservation programs aim not just to prevent the unnecessary placement of children, but also maintain children safely in their own homes while increasing social support and enhancing family functioning (Warsh, Pine, & Maluccio, 1995; Westat, 2001). Program goals guide the selection of outcomes to be measured. For example, Michigan's Families First study tracks the following six outcomes: out of home placement, subsequent maltreatment, caregiver social support, parenting skills, child well-being, and domestic violence. Each outcome relates directly to the program's overall goals and provides information about one aspect of the families' well being (Walters, 2005). When taken as a whole, the study's outcomes offer a multi-faceted view of

family life in order to more fully assess the highly complex concept of family functioning.

IFPS programs undoubtedly differ in focus and objectives depending on whether they are proactive in nature, as in the case of family preservation, or reactive, as in the case of family reunification. Since the studies reviewed in this report assume a proactive stance, it is notable that family preservation models typically reflect five foundational goals: (1) to protect children, (2) to maintain and strengthen family bonds, (3) to stabilize crisis situations, (4) to increase the family's skills and competencies, and (5) to facilitate the family's use of a variety of formal and informal helping resources (Whittaker & Tracy, 1990, p. 2). Although the programs reviewed here strive to prevent the placement of children at risk of being removed from their families, very few common themes emerge regarding the measurement of outcomes. Unfortunately, for this analysis of more recent studies of IFPS, placement results represented the only consistently measured outcome across studies.

Numerous other outcomes were measured, but not on a recurrent basis. All reviewed studies measure more than one aspect of program efficacy, however no other clear outcome themes emerged. Examples of additional outcomes include: economic functioning, household conditions, caretaker functioning, stressful life events, domestic violence, case closure, family strengths, parent-child communication, and child behavior.

Of the other variables examined in this set of reviewed studies, substantiated incidents of child maltreatment represent the second most frequently measured outcome. All programs reported data on the number of substantiated child maltreatment reports that occurred subsequent to entry into the study. Even when studies tracked this variable, however, they often differed in reporting procedures. For example, whereas Michigan's Families First study identified

and collected data on only one primary child in each family, the Westat (2001) researchers included all children at risk of removal within each participating family. Thus, a substantiated abuse or neglect report in one family with five children could conceivably result in a tally count of five incidents of maltreatment even though they all stemmed from the same incident. Such measurement differences in data collection inhibit comparability between programs and contribute to "nesting" bias in results. This phenomenon presents clustering concerns that can introduce bias when comparing results and interpreting effectiveness across studies. The methodological strategy of tracking only one primary child per family in Michigan's Families First study illustrates an effective way to avoid this type of nesting bias.

Control, moderating, and mediating variables also deserve greater attention. For example, are certain kinds of families experiencing unique situations such as difficulty in securing proper work permits, accessing health care, extreme community prejudice, or other challenges? Are there systematically different family outcomes when at least one member of the care team is of a similar ethnic background as the family? (Jorge Cabrera, personal communication, September 11, 2008).

Aside from methodological concerns in measuring subsequent maltreatment, the overall results are promising. Outcomes indicate that children in experimental groups experience abuse and neglect subsequent to entering studies at a similar rate to participants in comparison groups. Critics of family preservation and reunification often argue that children will be at increased risk of future maltreatment if left in or returned to the care of their families (Blythe et al., 1994; Maluccio, 1997; Maluccio & Whittaker, 1997). The results suggest that children receiving such comparative services as foster care, a program whose entire premise is to provide youth with safe living environments, experience additional maltreatment at rates equivalent to participants

in experimental conditions. As such, the results indicate that family preservation programs appear to be offering children the opportunity to remain in their homes without being at disproportionate risk for future mistreatment. These data offer hope that IFPS programs are equally as effective as foster care in ensuring children's future safety.

## Conclusions

In some ways the new study findings replicate those of the Fraser et al. (1997) comparative analysis of IFPS research and they highlight the same issues: targeting, treatment fidelity, and methodological limitations. However, in other ways they present promising new findings: the replicability of the intervention, the need to consider and control for risk factors, and additional evidence of effectiveness with child welfare populations. The Michigan study includes many exemplary features, with significant findings in favor of IFPS. Most of the other studies reviewed have serious methodological constraints that limit confidence in their findings.

The field must address the reality that there is a continuing demand for empirical evidence concerning the efficacy of family preservation programs (Gelles, 1993; Kelly & Blythe, 2000; Kirk et al., 2003; Warsh et al., 1995). Further research must be conducted in order to test empirically what works best for whom with respect to IFPS interventions. In order to achieve this goal, researchers must design studies that overcome the methodological weaknesses that have plagued the body of IFPS research. Such issues as targeting, treatment integrity, multiple outcome measures, and follow-up intervals must be proactively addressed in future research efforts. In addition, future research should measure program cost-benefit and cost-effectiveness (see Appendix B). For example, little research has been done on the costs incurred by states that implement IFPS programs versus such traditional interventions as foster care placement. Few jurisdictions are replicating and evaluating applications of IFPS for family reunification.

There is also reason to be cautious. One fundamental flaw of IFPS was an uncertainty about the main premise that birth families deserve at least as much support to care for their children as strangers get to care for other

people's children, and the tiny investment that resulted. Another caution is the difficulty in managing a system that has the dichotomy of trying to coerce families while trying to help them. The dismantling of IFPS was swift, as opposed to residential care, even though there are bodies of research that show the negative effects of some models of residential treatment/group care (Susan Kelly, personal communication, September 3, 2008). Recent foster care research and the poor outcomes for many youth exiting foster care as adults lead us to suggest here that we need to redouble our efforts to provide front end support—IFPS offers a promising way to do this

In summary, the findings of this review are cautiously promising for IFPS programs in child welfare that are delivered with fidelity to the Homebuilders® model. By strengthening evaluation methods, IFPS outcome research can produce findings with greater validity. It is only through these future findings that the true efficacy of IFPS programs can be more firmly established. As state and county child welfare systems, therefore, look ever more intently at reducing their foster care populations and reinvesting savings in high-quality services, we believe that IFPS programs should be one of that array of interventions based on continuing and evolving empirical support.

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# Appendix A

# A Comparative Analysis of Effect Size Calculations

#### **Effect Size**

For this project, we looked at the outcome variable of success, defined as out-of-home placement prevention, between an experimental and control/comparison group. Moreover, if a child was living with a relative, that would be considered success for this project. Effect sizes were calculated to compare the change and magnitude between the two groups (Fraser, Nelson, & Rivard, 1997). Because most of the studies in our sample listed success as a proportion, the common method of calculating effect sizes by *Cohen's d* or *Glasses' delta* was not possible. Therefore, Cohen's arcsine transformation was used to calculate effect sizes (Cohen, 1988, Lipsey, 1990) using the following:

$$\mathrm{ES}_{\mathrm{p}} = \Phi_{\mathrm{t}} - \Phi_{\mathrm{c}}$$

Where ESp is the individual effect size between groups,  $\Phi_{\rm t}$  represents the arcsine transformation for the success proportion of the treatment group, and  $\Phi_{\rm c}$  represents the arcsine transformation for the success proportion of the comparison group (Fraser et al., 1997; Lipsey, 1990). Lipsey (1990) provided the table from which the arcsine transformations can be obtained and calculated.

#### **Prevalence Ratio**

In addition to Cohen's arcsine, we calculated effect size by the Prevalence Ratio (PR) so that findings could be interpreted as "times more likely" if the PR is greater than 1, or "times less likely" if the PR is less than 1. Only with those studies that provided group *N* data were we able

to calculate the PR. To compute the PR we first determined the Prevalence of *Success* as follows:

Prevalence = 
$$N$$
 of Successes for Group

Total Group  $N$ 

Prevalence was then used to calculate the PR as follows;

PR = Prevalence of Experimental Group
Prevalence of Control/Comparison
Group

As Kirk and Griffith (2004), as well as others, have pointed out, even though an effect size, and consequently a PR size, may be small, if the intervention impacts a large number of people, as these studies have the potential of doing, they can result in a significant positive impact. For example, in Oregon during 2006 there were 12,043 verified victims of abuse and/or neglect. Of those, 5,294 children were placed in care and 6,749 were not (Oregon DHS, 2006). If an IFPS treatment model had been used and subsequently exhibited a PR similar to that of the Michigan Families First (2000) study (PR=1.27), 1,822 fewer children would have entered care (6,749 x PR). With a PR = 1.47, as the Kirk and Griffith (2004) evaluation demonstrated, 3,178 fewer children would have entered care. These examples illustrate how a relatively small to moderate effect size can have a large impact on a population. For states that are struggling to maintain an adequate supply of well-trained foster parents, alongside the well-recognized need to reduce the caseloads of child welfare workers, an intervention with this ostensibly small to moderate effect size not

only has the potential to improve the system by keeping large numbers of children out of placement, but it also positively impacts the system from a cost-effectiveness standpoint as well.

### Chi Square

When sufficient data was provided, chi squares were run to show the statistical significance of the individual study effect size (see Table A.1).

Table A.1

Study	Success	Non-success	N	Prevalence = # success/ # total	PR = Prev Exp Group/Prev Cont Group	P-Value
Ciliberti (1998)						
Exp Group	26	16	42	0.619	1.27	0.226
Comp Group	21	22	43	0.488		(1.468, df=1)
Kirk (2004) No Controls						
Exp Group	450	92	542	0.83	1.00	0.9869
Comp Group	21,349	4,373	25,722	0.83		(0, df=1)
Kirk (2004) Fig 2						
Exp Group	34	8	42	0.81	1.47	0.0017
Comp Group	265	208	473	0.56		(9.843, df=1)
Kirk (2004) Fig 3						
Exp Group	168	69	237	0.709	1.13	0.0138
Comp Group	3,004	1,765	4,769	0.63		(6.064, df=1)
Michigan (2002/05)						
Exp Group	112	8	120	.933	1.47	.000000009
Comp Group	52	30	82	.634		(28.55, df=1)

**Table A.1 continued** 

Study	Success	Non-success	N	Prevalence = #success/ # total	PR = Prev Exp Group/Prev Cont Group	P-Value
WESTAT: KY						
Exp Group	134	40	174	0.77	1.01	0.823
Comp Group	133	42	175	0.76		(.05, df=1)
WESTAT: NJ						
Exp Group	198	77	275	0.72	0.92	0.151
Comp Group	129	36	165	0.78		(2.065, df=1)
WESTAT: TN						
Exp Group	75	23	98	0.765	0.94	0.4800
Comp Group	40	9	49	0.816		(.499, df=1)

Note: Exp = Experimental, Comp = Comparison.

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# Appendix B

## Ways of Improving IFPS Evaluation Methods

#### Conceptualization of Outcomes

The research methods being used to evaluate family-based services reflect a lack of consensus about outcome selection and definition. Family preservation research often borrows from clinical research that distinguishes types of intervention goals as being "ultimate, instrumental, and intermediate in terms of the role that they play in the treatment process" (Rosen & Proctor, 1981, p. 418). These distinctions speak to assumptions about certain categories of outcomes indicating attaining treatment goals versus facilitating the treatment process. Rosen and Proctor (1981) offered the following definitions of each level of outcome:

*Ultimate* outcomes signal the achievement of treatment objectives and are the criteria for treatment success, *instrumental* outcomes are those that are assumed to be sufficient conditions for attainment of other outcomes without further intervention, and *intermediate* outcomes are those viewed as generally facilitative of continued treatment or as necessary preconditions for employment of a particular interventive technique (p. 418, emphasis added).

Being that family preservation and reunification models represent blueprints for treatment interventions, existing research frequently employs the above listed tri-fold definitions in conceptualizing the type of outcomes to be evaluated. There remains a lack of consistency, however, in definition of key program goals in family-based research. Some argue that placement prevention, or returning children to their own homes, is subject to too much structural variation

and subjectivity to be a reliable indicator of success. Instead, improvement in child well being and family functioning should be considered the ultimate outcome of family preservation services (Jacquelyn McCroskey, personal communication, March 10, 2008).

Accurate categorization of outcomes is essential to rendering meaningful results about intervention effectiveness (Ziera & Rosen, 1999). Although the ability to safely maintain children in their family systems represent critical goals of family preservation programs, studies of such programs differ in how they classify these goals. Michigan's Families First study identified placement prevention and subsequent substantiated maltreatment as ultimate outcomes. According to those researchers, ultimate outcomes pertained to "indicators that are common to the overall objectives of all programs, such as avoiding placement" (Blythe, Salley, & Jayaratne, 1994, p. 221). These core outcomes were deemed ultimate in nature because they were indicative of the relative success of the overall treatment intervention.

Such outcomes as domestic violence, child well-being, social support, and parenting skills were deemed *instrumental* outcomes in the Michigan study. In contrast, Fraser et al. (1997) defined *ultimate* outcomes as policy-related variables that affected resource utilization while more practice-related variables, such as child maltreatment, were not categorized as *ultimate* outcomes. Differences in conceptualization affect methodological decision-making and invariably impact results. For example, Kirk and Griffith (2004) assessed types of maltreatment as they

related to overall success of the intervention, and serious maltreatment subsequent to participation in the study was included in the Cox regression model. Such methodological differences diminish comparability across studies.

One might ask, *Is it time for a paradigm shift with respect to measuring program outcomes?* We think the answer is yes. It would be helpful to move beyond structural definitions of IFPS and emphasize the need to fit program content to specific risk and protective factors affecting the families to be served. It is those factors that should drive the choice of specific practitioner intervention strategies (Mark Fraser, personal communication, April 1, 2008).

#### Variant Precision in Outcomes Measurement

Other methodological concerns exist regarding how the family preservation literature conceptualizes and operationalizes instrumental and intermediate outcomes. As previously mentioned, not only did the reviewed studies vary in terms of which non-ultimate outcomes were measured, but they also varied in how they measured like outcomes. In response to criticism that early family preservation research had not adequately addressed quality-of-life issues in terms of outcomes, child well-being has since surfaced as a key concept in family preservation research (Blythe et al., 1994). Assessing children's well being warrants attention as an indicator of how the child is faring in a given living situation and under a given intervention. Child well-being is also one of the three standards for federal child welfare case reviews. Numerous studies reviewed for this paper espoused the belief that it is not enough to merely track whether children are placed in or out of the family. Rather, the research must also consider how well a child is doing emotionally, physically, psychologically, and behaviorally while in that setting. For example, the three Westat (2001) state studies

assessed children's behavior through original questionnaires that included such items as school behavior, substance abuse, depression, and arrest rates. These aspects of children's experiences unarguably relate to a young person's sense of well being.

Researchers in the Michigan Families First study created a measure of child well-being based on Magura and Moses' (1986) Child Well-Being Scales. The underlying belief of this scale is that all children share core physical, social, and psychological needs (Magura & Moses, 1986). Although the inclusion of child well being as an *instrumental* outcome represents progress in the quality of the research, the reality remains that using measures without known psychometric properties limits the generalizability of results and may hinder replication attempts.

In terms of measuring instrumental and intermediate outcomes, family preservation research continues to be confronted with the need to find meaningful outcome measures that adequately address critical variables associated with the nature and quality of family life. For example, with its demonstrated reliability and validity, the Child Behavior Checklist (CBCL) has been used to assess changes in children and adolescents' emotional and behavioral concerns over time (de Kemp, Veerman, & ten Brink, 2003). Such assessments have been used to estimate imminent risk of placement and may also lend insight into changes that occur after families receive preservation services aimed at reducing familial stress, re-stabilizing the family system, and shoring up social support. These measures clearly relate to core goals of family-based practices and interventions.

Likewise, studies have used the Nijmegen Childrearing Situation Questionnaire (NCSQ) to measure parents' subjective experiences of stress related to child rearing. This instrument predicts when the level of family stress falls into a category associated with increased risk of imminent

placement (de Kemp et al., 2003). Future research could explore the utility of this instrument as well as others such as the Abdin Parenting Stress Index (see www3.parinc.com) for tracking changes in parental stress levels. In addition, the Adult-Adolescent Parenting Inventory (AAPI-2, see www.aapionline.com) could be assessed for tracking parenting skills as they are improved by IFPS. The North Carolina Family Assessment Scale (NCFAS) assesses family functioning and may prove useful in predicting placement risk. A specific version, NCFAS for Reunification, measures reunification success. Practitioners can use the instrument to assess such areas as parenting capabilities, child well being, and family safety (Kirk, Kim, & Griffith, 2005).

The Center for Social Services Research conducted a comparative review of family assessment instruments used in child welfare service provision. These instruments focus on aspects of family functioning typically embedded in family preservation and reunification program service goals. The Dartington Family Assessment System instrument, Family Assessment Checklist, and Strengths and Stressors Tracking Device instrument may offer viable options for assessing family functioning at various points both pre- and post-service delivery (Johnson, Stone, Lou, Vu, Ling et al., 2006).

Regardless of which instruments are chosen, care must be taken in interpreting results with diverse families since many have not been validated for the wide variety of sub-populations served by the child welfare system.

#### Economic Analyses<sup>1</sup>

Undertaking cost and outcome analyses—or even simply cost analyses—could represent a major contribution to family preservation services. Most of the literature on effective services in these areas assumes that service providers strive to achieve the best outcomes without regard to budget constraints. Information about effectiveness coupled with cost information would enable decision makers to better understand the tradeoffs involved in selecting various treatment approaches and in preparing budgets.

While cost-benefit analysis is the most well known of the class of cost and outcome analysis, there are several additional types of analysis that would also generate valuable insights. These options are listed below, in *descending* order of the demands they place on data collection and analysis. Costoutcomes analyses require the most resources, and they also require better measures of outcomes and benefits.

#### **Cost-Outcomes Analysis**

This involves comparing the costs of services to society to their benefits to society. This comparison generally entails expressing the costs and benefits in dollar terms so they can be compared. Cost-benefit analysis helps indicate whether a program is of value to society at large in terms of generating benefits that outweigh the costs, however in a cost-outcomes analysis, we can estimate over time the benefits and cost savings of addressing trauma early, including those that are not monetarily defined (e.g., improvements in health outcomes and the related benefit to academic completion, later mental health service use, development of comorbid mental health conditions). A 1998 RAND (Karoly, Greenwood, Everingham, Hoube, & Kilburn et al., 1998) study identified at least four types of significant savings to government:

1. Increase in tax revenues from increased employment and earnings by program participants, including state and federal income taxes, Social Security contributions, and state and local sales taxes:

Abstracted from Dana Schultz, Anita Chandra, and Dionne Barnes (2008). Review of Cost Analysis Plan for Casey CBITS for Youth in Foster Care. (Memo to Casey Family Programs.)

- Decrease in government assistance including Medicaid, Food Stamps, welfare, and general assistance by counties;
- Decrease in expenditures for education, health and other services, including foster care, special education, emergency room visits, and homeless shelters;
- Decrease in criminal justice system spending on arrest, adjudication, and incarceration.

#### **Cost-Savings Analysis**

This type of analysis focuses exclusively on the costs and benefits that accrue to government or another specific organization rather than to society as a whole. This kind of analysis is often used to determine whether a publicly provided program "pays for itself" and is thus justified not only by whatever human services it may render but also on financial terms alone.

#### **Cost-Effectiveness Analysis**

The goal of this type of analysis is to estimate the amount of spending required to realize a given outcome level or what level of outcome results from a particular expenditure. Rather than providing a full accounting of all benefits from a program or service, cost-effectiveness analysis focuses on one particular type of benefit.

#### **Cost Analysis**

No benefits are measured as part of cost analysis. Cost analysis helps decision makers benchmark against standards in the industry, informs decision makers about resource requirements for replicating services or other programs, and assists with other types of resource allocation decisions.

# Practical Steps for Advancing IFPS Research

A few practical recommendations to advance IFPS research are listed below:

- 1. Be careful and rigorous about how the treatment model is specified.

  For example, program leaders need to be able to specify the theory base underlying the program, the major intervention methods, caseload size, intensity, and approach to the provision of concrete services—all as a way of knitting together a clear and compelling theory of change.<sup>2</sup>

  The IFPS evaluation should ideally test both the malleability of the child, parent or family risk factors and the causal chain leading from these risk factors to the intended program outcomes (Snyder, Reid, Stoolmiller, Howe, Brown et al., 2006).<sup>3</sup>
- 2. Beware of logic models that do not adequately represent systems complexities, cultural complexities, and intervention dynamics (Patton, 2008). There is increasing concern that logic models, as typically constructed, are too linear and do not adequately represent other dynamic factors that interact to produce certain behaviors or events.
- 3. Consider rigorous evaluation designs other than Randomized Field Trials (RFTs) if that will make a difference

<sup>&</sup>lt;sup>2</sup> Note, however, that prevention scientists are increasingly recognizing that research studies can be used to test and improve etiologic (developmental) theories, filling in key gaps if the evaluation designs are constructed with that purpose in mind (cf., Brown, Wang, Kellam, Muthén et al., 2008; Sandler, Gersten, Reynolds, Kallgren, & Ramirez, 1988).

<sup>&</sup>lt;sup>3</sup> How might this be accomplished? First, review the incidence and prevalence of child maltreatment to identify the central risk factors for various kinds of maltreatment. But note that some risk factors are more malleable than others. For example, parenting skill and emotional regulation are two key malleable risk factors. In contrast, other risk factors are more difficult to address in a brief intervention. These include drug addiction and other conditions that render consistent parenting difficult. From a prevention science perspective, IFPS should be designed to disrupt malleable risk factors and – as a result – to prevent child maltreatment and enable positive parenting (Mark Fraser, personal communication, April 1, 2008).

as to conducting the study or not. Examples of these designs include multiple baseline comparison group designs, Dynamic Wait-listed Design,4 regression discontinuity designs, and comparison groups that use propensity score matching (e.g., Barth, 2008; Brown & Liao, 1999; Brown, Wyman, Guo, & Peña, 2006; Brown et al., 2008). The evaluation design should also track and measure the families who drop out of IFPS or the comparison intervention groups ("attrition analyses"), as well as include a large enough sample size so that the study will have adequate power to detect moderate or strong intervention effects. In addition, services received by the comparison group need to be tracked since family-centered services are often available from sources outside the study and may confound results.

4. Implement research designs that can test whether changes in specific mediators take place, and whether changes in these mediators lead to reductions in the intermediate or more long-range outcomes. Practitioners as well as policy-makers want to know what specific intervention strategies make the most positive difference for certain kinds of families. That is, what factors help or hinder treatment success?5

In many good social experiments today, the focus is on both outcomes and mediators. From a program theory that informs the design of a service, factors that are expected to change as a result of intervention are measured. In IFPS, these could include parenting skills or home habitability. Mediation analyses focus on showing that targeted outcomes, like child maltreatment,

- vary by change in the mediators. If it is not possible to conduct mediation analyses, we are left with an intervention that is a black box. If a program is effective, it cannot be replicated, other than to replicate its structural features. If it is ineffective, it is ignored. (Mark Fraser, personal communication, April 1, 2008).
- 5. Target participants via documented imminent risk of placement. High risk of placement is key to effective implementation of IFPS interventions that are intended to prevent unnecessary placements. Movement toward use of adjudicated sampling pools in which court petitions for placement have already been filed is another promising targeting strategy. Studying subgroups with prior placements offers another such strategy. Research involving reunification services avoid this problem since all of the children are in placement at the time of referral (e.g., Rzepnicki et al., 1997; Walton et al., 1993).
- 6. Ensure there is an adequate dosage of the intervention. We often do not take the time to consider what it will really take to make a meaningful difference for parents or children. And yet in medicine, a doctor would never prescribe half the prescription needed. So, program administrators need to be able to specify what it will take to truly make a difference in the lives of these families.
- 7. Measure the effects of differential participant mortality (dropout) rates across the groups. Sometimes termed "intent to treat" analyses, this safeguard has been highlighted as a key issue to monitor and explicitly address if there are differential

<sup>&</sup>lt;sup>4</sup>The dynamic wait-listed design uses a randomly chosen time to start the intervention for a group of families when their IFPS intervention would be delayed because of insufficient resources of some kind. But unlike the standard design, with the dynamic waitlisted design, the intervention is initiated more than two separate times (Brown et al., 2006).

<sup>&</sup>lt;sup>5</sup> C.f., Littell (1997) and Littell & Schuerman (2002).

- family IFPS completion rates across study groups.
- 8. Implement longer-term follow-up studies. We must have realistic expectations for how much impact a brief (albeit intensive and powerful) intervention can have upon the lives of families whose environments often have numerous stressors. In addition, sometimes we may not be able to measure one or more distal outcomes that lie beyond the study follow-up period. But we may be able to measure more short-term/ proximal results that are linked to the more long-term outcomes. In addition, interventions received during the follow-up period need to be tracked to assess their impact on longer-term outcomes.

Long-term effects have been found in certain situations. For example, one study that used the Homebuilder's IFPS model for family reunification not only reunified more children more quickly and safely but statistically significant differences remained *six years* after the families were served (Walton, 1998). The results of this study are extremely encouraging and lengthier follow-up intervals in new studies may shed more light on the efficacy of IFPS over time.

9. Collect cost-benefit data. With continuing funding scarcity, we must be able to tie key outcomes to service and other costs and benefits. So if one particular intervention will be insufficient in power or intensity to have a major effect, then we should invest in an intervention model that is more cost-effective or where the effects in terms of fiscal benefits outweigh program costs under different economic scenarios (Kilburn & Karoly, 2008).

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